

DISTANCE MEASURING DEVICE

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Abstract of JP10096778

PROBLEM TO BE SOLVED: To improve distance measuring accuracy by making the most of respective characteristics of absolute distance information found from measuring information of a timer means by projecting a pulselike beam of light from a first distance measuring light source and distance information found by detecting a phase difference by a phase difference detecting means by applying a beam of light modulated from a second distance measuring light source, and joining them. **SOLUTION:** A laser position measuring device 40 is constituted so as to make common use of a single light emitting device 60 for a function as a first distance measuring light source FL to project a pulse-like beam of light toward a distance measuring object and a function as a second distance measuring light source SL to project a beam of light modulated by a reference signal of a preset period toward the distance measuring object. An operation device 70 finds absolute distance information from counting time of a timer 69. A phase difference detecting means FD finds a phase difference between a sine wave of a first oscillator 66 and a sine wave signal contained in a detecting signal of a light receiving element 62 from counting time of a timer 74. The operation device 70 finds a distance up to a distance measuring object from the absolute distance information by converting it into a distance corresponding to a phase difference.

